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Table of Contents

<i>The President's Corner</i>	3
<i>International Activities Report</i>	5
<i>Distinguished Technical Achievement Award</i>	10
<i>Fellow Award: Albert J. Williams</i>	11
<i>OCEANS '05 Europe</i>	11
<i>Officer Nominations Sought</i>	12
<i>OCEANS '05 Europe Photos</i>	13
<i>OCEANS '05 Europe Student Poster Program</i>	17
<i>From CoCoPo to JOAB: A new era in Oceans Conferences</i>	18
<i>IEEE OES Newsletter Report</i>	19
<i>Obituary</i>	21
<i>2005 National Ocean Science Bowl</i>	22
<i>JOCARA</i>	23
<i>Upcoming Conferences</i>	26
<i>Conference News</i>	27
<i>IEEE Xplore Upgrade Provides New Tools For Researchers</i>	27
<i>Call for Papers - US/EU-Baltic International Symposium</i>	28
<i>Oceans '05 D.C.</i>	36
<i>Offshore Technology Conference</i>	37

President's Corner

There has been a lot of activity in the society over the past few months that has direct impact on all members. Jim Collins and his committee have completed their update on our Constitution and By-Laws. A society vote on the revised documents will take place this summer. Everyone should participate in that vote as they concern the efficient running of our society. The committee has spent considerable time and effort to develop the documents so that the mechanics of the society can be easily understood and implemented.

Norm Miller is leading a study to determine the procedures to establish an OES scholarship to encourage students to become engineers that have an orientation to ocean related platforms and systems. We welcome any input that the society members feel is appropriate. For example, is it better to award several small stipends or just a couple large ones? What procedure should be established to select the recipients?

Todd Morrison has done yeoman's work sheparding the development of web tools to assist conference committees to have readily available such things as a conference web page, electronic abstract handling, session configuration and in the near future registration on the web.

As usual the Offshore Technology Conference (OTC) was a huge success bringing over 51,000 attendees to the Reliant Cen-



ter at Reliant Park in Houston, Texas. This represented the highest attendance since 1985 and represented 110 nations. The event is scheduled for 1-4 May 2006 at the same venue with the theme being "New Depths, New Horizons".

Rene Garello and his conference committee ran a successful meeting in Brest this past June. The event was both a technical and financial success. This was the second time we held an OCEANS conference in Brest and the hospitality of the city showed through. Special treats were the cruise on the sailing ship *Recouvrance* and the visit to Oceanopolis. The Mayor was especially gracious in supporting our awards lunch in the City Hall.

The society is one of a team of six IEEE society sponsors for an IEEE new initiative to support the design and development of the all electric ship concept. A symposium is planned for 25-27 July in Philadelphia at the Renaissance hotel located near the airport. As of this writing there are approximately 160 attendees registered, representing a cross section of interested countries. Other organizations serving as technical sponsors include IMarEST, ASNE, and ONR.

The Smithsonian Natural History Museum is in the process of developing an OCEAN Hall and the society has been invited to

participate in the planning process. The project is expected to be completed by 2008. We have suggested the use of some of the human powered submarine entries for the exhibit portion of the hall. The concept includes the use of models, simulations and computer based games as one of the highlights. Please contact Tom Weiner or me if you have any thoughtful inputs for the hall.

The society is one of four from IEEE that are involved with the design and development of the Global Earth Observation System of Systems (GEOSS). These four formed a Committee for Earth Observations (CEO) that has as its focus the establishment of standard measurement units for the myriad parameters, computer architecture for data storage and processing, and display techniques to enable the efficient presentation of the information to the disparate users. Anyone interested in lending a hand should contact me.

Our next event is OCEANS 2005 MTS/IEEE Americas—Washington D.C. to be held 19-23 September at the Marriott

Wardman Park Hotel in downtown Washington D.C.. This promises to be an outstanding event situated in the seat of power for the United States. In addition to an excellent technical program put together by the conference committee the city is a tourist delight with sites too numerous to mention for all family members. September in Washington can be very enjoyable weather allowing for fine sightseeing.

On a sad note the society and many of its members lost a friend and colleague this past May as Fred Fisher passed away. We will miss his jovial style and willingness to help our society. He was a past editor of our journal and an active member of the community. Please see the detailed background on page 21.

Jim Barbera
IEEE/OES President

Motion for Adoption of the Revised Constitution and Bylaws

The Committee on Constitution Revision moves that:

1. Subject to approval by the IEEE, the Administrative Committee recommends that the Society ratify the proposed Constitution, and
2. Subject to the ratification of the proposed Constitution by the Society Membership, the Administrative Committee approves the adoption of the proposed Bylaws, and
3. Subject to the ratification of the proposed Constitution by the Society Membership, the new Constitution and Bylaws shall become effective on January 1, 2006, and
4. Subject to the ratification of the proposed Constitution by the Society Membership, the election of Officers during the last regularly-scheduled meeting of the Administrative Committee in 2005 shall be as specified in the new Bylaws, provided that current service as an Officer shall not count against term limits, and further provided that newly-elected officers whose terms normally begin in odd-numbered years shall serve a one-year term for the first term, and then revert to two-year terms.

Under this motion:

- The President continues in office for one more year without election.
- The Vice President for Technical Activities continues in office for one more year without election.
- The Vice President for Conference Development must be elected for a two-year term.
- The, the Vice President for Conference Operation must be elected for a one-year term.
- The Vice President for Professional Activities must be elected for a two-year term.
- The Editor-in-Chief must be elected for a two-year term, having already served one year of his three-year term.
- The Secretary must be elected for a one-year term, and
- The Treasurer must be elected for a two-year.

Editor's Note: *The revised Constitution and By-Laws has been mailed for vote of approval by the membership. The closing date for the receipt of your ballots is 31 August 2005*

INTERNATIONAL ACTIVITIES REPORT

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The OES new policy of two OCEANS conferences each year is now in full swing. The first “offshore” conference was held successfully as OCEANS MTS/IEEE-Techno-Ocean 2004 in Kobe, Japan last November; and the second, Oceans 2005 Brest was held successfully in June, without sponsorship from MTS. It was ably chaired by Rene Garello with great support from Joelle and members of the France Chapter. There were approximately 600 registrants and 260 papers and enjoyable social events.

Also, in June 2005, the Eighth Current Measurement Technology Symposium in Southampton, England, organized by Sandy Williams, WHOI, was a success with 69 registrants and 31 papers.

OES is planning future North American and offshore conferences out to 2013. If MTS accepts the standing invitation to share sponsorship of any offshore conference, then all costs involved will be equally shared.

Oceans 2006 Singapore: The next offshore Oceans conference <www.Oceans06asiapacific.org> to be held May 16-18, in the Raffles City Convention Centre and Swissotel, The Stamford, tallest hotel in Southeast Asia, (figure 1). The technology program will sample many of the technology advances in Southeast Asia-Pacific. OES Senior member John Potter of National University of Singapore is Co-Chairing with Arjuna Balasuriya, Nanyang Technological University and Chapter Chair. Members of the Singapore Chapter make up the conference committee. John is a seafaring scientist/engineer who expects to complete in August, a year-long sail to ports of the Indian Ocean. His crew includes his wife Carolyn and two sons, 12 and 10. You can read about their travels in the OES newsletter or visit <www.jocara.net>. John offered to give an account of their trip at Oceans '05 in Washington.

Oceans '05 Washington: Four years ago, I had the opportunity to invite NOAA Administrator, VADM Conrad Lautenbacher to Chair Oceans '05 <www.oceans2005.org>. Executive chairs include Barry Stamey, Steve Holt and Fred Klein, all from Mitretek Systems Inc, Falls Church, Virginia. Kudos to Mitretek for their great support. They have escalated the program to 16 prominent ocean leaders as Co-Chairs, who will speak at daily plenary sessions, focusing on their theme of “One Ocean”. And, almost 600 papers in 18 parallel sessions will be presented; promising to be an outstanding conference at the Marriott Wardman Park Hotel, September 19-23.

US/EU-Baltic International Symposium < www.us-baltic2006.org> will be held in the Baltic port city of Klaipeda,



Lithuania May 23-25 in the the week following Oceans 2006 Singapore. Singapore attendees can return to the US by continuing their flight westward to Frankfurt and Vilnius, Lithuania. It's approximately equidistance to returning home in the US, or shorter to Europe. This is your chance for a “Round the World” fare that offers great stopovers. The US/EU- Baltic Symposium's theme focuses on Integrated Ocean Observation Systems (IOOS), that is an ocean component of Global Ocean Observation System (GOOS), and the Global Earth Observation System of Systems (GEOSS). GOOS/IOOS leaders in the EU and US will be speakers in the Plenary Session. Key OES organizers include James Barbera, Sandy Williams , Victor Klemas, Al Kalvaitis and me.

AdCom Meeting Agendas

I was unable to attend the AdCom Meeting in Brest, but Robert Wernli, RECON Committee Chair ably substituted. There was a lot of activity reported, but not enough time to complete the agenda e.g. the RECON Committee was unable to report, and new proposal representatives who made the trip to present were unfortunately unable to do so. OES activities are growing in size, especially with the two OCEANS conference each year. Since our schedule is out to 2013 there are about 18 OCEANS Conferences and about 6 active symposia or workshops in the pipeline at any one time. Progress on these are reported and each needs assistance based on their stage of progression. Future conferences often have interesting developments to



Fig.1 Raffles City Convention Centre and Swissotel-the-Stamford



Fig.2 RECON Committee meeting attendees: L to R, Bob Wernli, Chair, RECON Committee Tamaki Ura, OCEANS 2008 Japan Malcom Heron, OCEANS 2010 Sydney, Australia Christoph Waldmann, OCEANS 2009 Bremen, Germany Peter Gough, OCEANS 2010 Sydney, Australia Jesus Manuel de la Cruz, OCEANS 2011, Spain

report... I recommend that at least two days be allocated to AdCom, perhaps at the beginning and end of the conference. The first should be allocated to the big ROI and high priority items, including publications, conferences and symposia. The second day allocated to the standing and AdHoc Committees and new business. To minimize the length of deliberations, E-mail reports should be prepared and sent to AdCom 7 days in advance, thus using agenda time to briefly critique. Any, over extended discussions, should be tabled with action items for post meeting responses.

Membership & Chapters

International membership and chapters are very helpful in providing core groups to organize a conference or symposium. This was very true in Japan, Taiwan, Singapore, Germany, Canada (Quebec City planned) and now Spain. Congratulations to the new Spanish Chapter and Chair Jesus Manuel de la Cruz, who proposed Oceans 2011 in Spain. Conference



Fig.3 Port City of Bremen, Germany

activity will strengthen the chapter. There is promise of a Chapter in Aberdeen for Oceans 2007. After a conference, these chapters need to remain active by interaction with OES activities. A new IEEE Section has been formed in Lithuania, providing an opportunity for an OES chapter. Jim Collins, Norm Miller and Ken Ferer have been promoting and tracking these developments.

Finance

Based on my experience, we may have to consider funding for conferences, symposia and workshops differently. Oceans conferences are now requiring larger start up loans, but have a good record of payback. The risks to achieve success are greater for symposia and workshops, mainly because venues for small meetings don't benefit by economies of scale; exhibitors are usually not included to provide a major source of income; and local operating policies may differ. Big surpluses are not expected and breaking even could be difficult. In some "new startup" cases, I would recommend awarding a grant, similar to those instantly awarded for "flag waving" events. For example, new startups in Eastern Europe, the Baltic Region, South America (Chile, Brazil, Argentina) can help open new OCEANS venues in these regions, but new beach heads may require extra investment to assure success.

Grants for any new projects should be considered on the basis of importance to the society, membership served and gained, and ROI.

The OES membership roll has been somewhat static, but much needed to support the many conferences and other projects in the pipeline. It's important that we don't over extend our limited human resources, and inadvertently reduce the quality of these activities, at the expense of quantity.

Publicity/Communications

Publicity/communications for conferences, symposia and workshops are ably provided by: Fred Maltz, Editor of the Newsletter; Todd Morrison as Webmaster; and Diane DiMassa, Editor of the Electronic Letter, are all invaluable in getting the word out. A hard copy of the Newsletter is a great handout when visiting and promoting OES business.

RECON Committee Reports

In May, at the OES ExCom meeting at OTC Houston, Glen Williams chaired the RECON Activities Report. At the OCEANS 2005 Brest conference, the OES RECON Committee meeting was chaired by Robert Wernli. Those attending the meeting included: Robert Wernli (Chair), Stan Chamberlain, Sandy Williams, Bob Bannon, Pam Hurst, Tamaki Ura, Christoph Waldmann, Peter Gough, Mal Heron, and Jesus Manuel de la Cruz. Figure 2 is a photo of Robert Wernli with the principal representatives of the countries offering future OCEANS proposals.

RECON Committee

As of this date, RECON members who had previously agreed to serve are listed below with the principal regions they will cover and also have flexibility to assist elsewhere, as needed. Note that MTS will have the opportunity to pro-

pose venues and assign members to participate in planned RECON site visits.

RECON Regions of Assignment

REGION	MEMBER	SOCIETY
Asia-Pacific & Japan	Tamaki Ura, Hisaaki Maeda	OES
Asia-Pacific & West Coast	Glen Williams, Robert Wernli	OES
West Coast & Asia-Pacific	Daniel Schwartz	MTS
Gulf Coast & East Coast	Jerry Carroll, Jerry Boatman	OES & MTS MTS
South America	David Farmer, Sandy Williams Andy Clark	OES OES & MTS
Canada Atlantic & East Coast	Ferial El Hawary	OES & MTS
East Coast & Europe	Pam Hurst, Robert Bannon	OES
Europe & Baltic	James Barbera, Victor Klemas	OES
At Large	Joseph Vadus	OES & MTS

RECON Charter

Before discussing progress on conferences, it is desirable to briefly explain the roles of the RECON Committee and the Joint Oceans Advisory Board (JOAB). Members on each have considerable experience in organizing and managing conferences, symposia and workshops. First, the RECON Charter:

RECON Committee Charter

This charter establishes the membership and functions of the Reconnaissance (Recon) committee in charge of discovering new prospective sites suitable for holding OCEANS Conferences & Symposia.

The RECON Committee members are appointed by OES and MTS Presidents. They must have had previous experience with conducting an OCEANS conference. A balanced MTS-OES representation is needed for the North American Conferences, with additional OES representatives for Non North American Conferences supported by OES. The societies should delegate sufficient authority to RECON members to conduct their tasks.

The main functions of RECON are:

Venue quest:

- Seek candidate venues: initially to seek a single (non-competitive) venue proposal for a given year, alternating between North American east (even years) and west (odd years) coasts. Offshore conferences will be Europe (odd years) and Asia (even Years) If there are other interested, capable venues, plan to slot them into different years to avoid or minimize competition for the same year.
- Help the representatives of the potential venue to generate a preliminary proposal (2-3 pages) that describes their objectives and information on the conference that answers the questions pertaining to “What, When, Where, How & Who”, in accord with MTS/OES Conference Guidelines.

Venue guidance:

- conduct venue site visits
- Assess transportation and accessibility to the site
- Assess adequacy of the facilities
- Identify potential sponsors and financial support
- Assess leadership offered: Honorary Chairs and Program Committee



Fig.4 Sydney Convention Centre & Darling Harbour

- Advise on selection of Committee Liaisons
- Identify venue attractions
- Present information on MTS/OES Conference Guidelines
- Discuss the MTS/OES process in getting approvals and the advisory role of JOAB, to assist in conference management

Proposal and Reporting Guidance

- Request a preliminary proposal using the guidelines as a reference
- <http://www.oceanicengineering.org/docs/Proposal-Guide.pdf>
- Prepare periodic reports prior to meetings of MTS, OES and JOAB.
- Request a PowerPoint presentation by the Conference Committee to MTS & OES, RECON & JOAB (preferably jointly) to obtain provisional approval to process with a final proposal and budget spread sheet, subsequently delivered to JOAB.

Final Proposal Approval

- JOAB to complete review of final documents and make their recommendations to MTS Board & OES AdCom & Recon.

The Joint Oceans Advisory Board (JOAB) & (OAB)

The JOAB is comprised of MTS & OES experts on conference management to advise the Oceans MTS/IEEE conferences. OAB consists only of OES members and advises non North American, Offshore conferences.

The JOAB/OAB is activated as soon as RECON completes its review and assessment of the new venue; obtains the preliminary proposal and budget and then hands off the conference. The JOAB is prepared to advise the conference committee on matters brought up and sought by the Conference Committee Liaisons. After the handoff, the JOAB should give a power point presentation to the Conference Committee on how to proceed on the major functions of the conference. The charter of JOAB is presented elsewhere in this Newsletter.

Conference Policy & Procedures

The Newly drafted OES Constitution and By Laws documents by the OES “Group of Ten” Committee will now be followed by



Fig.5 Proposed Venues of Spain, Valencia and Santander

Policy & Procedures. RECON & JOAB Charters and some new procedures in the Conference Guidelines will be considered in the review.

Proposed OCEANS Conference Sites: Proposed sites, as of 16 June 05, are given in Table 1, as compiled by RECON Committee Chair, Robert Wernli. He noted that there was general concurrence among the attendees of the recommended sites, although there was no formal vote. It was recommended that, if possible, the North American dates should be scheduled into October or early November to provide a greater time gap from international conferences in May-June.

The following presentations for proposed OCEANS international/offshore sites were made at the meeting:

a. OCEANS '08, Japan - Tamaki Ura recommended that the OCEANS conference return to Japan in '08. Meetings are scheduled in Japan to discuss the Kobe vs. Tokyo venues and a recommendation will be made at the OCEANS '05 AdCom in Washington, DC. Tamaki Ura did not propose any other Asia-Pacific sites for '08 or '12.

b. OCEANS '09, Germany - Christoph Waldmann, University of Bremen gave an excellent presentation on the proposed OCEANS conference in Bremen, Germany in '09. A handout with a detailed budget was provided. Excellent support from Bremen organizations is anticipated. Recommendations are to proceed with locking in the dates and facilities. RECON is working toward a hand off to JOAB. Bremen, illustrated in figure3, is an important port city in Germany.

c. OCEANS '10, Australia - Mal Heron, James Cook University, Australia and Peter Gough, University of Canterbury, New Zealand presented their proposal to hold the OCEANS '10 conference in Sydney, Australia, illustrated in figure 4. Brian Ferguson, Defense S&T Organization of Australia is organizing the members and Australian cities to support the Sydney venue in late May or early June. RECON is planning site visits to Sydney in 2006, perhaps following OCEANS 2006 Singapore in May.

d. OCEANS '11, Spain - Jesus Manuel de la Cruz, Complutense University, Madrid is Chair of the new Spanish OES Chapter. Roque Saltaren served as Chair during Chapter formulation. We congratulate and welcome the members of the new chapter. Jesus Manuel de la Cruz presented a brief introductory proposal to hold the OCEANS '11 conference in Spain and was assured of excellent support across the country. There are at least 3 good venues for the conference, including Valencia on the Mediterranean and Santander on the Atlantic as illustrated in figure 5. Valencia will be the site of the America's Cup Races in 2007. His presentation will be included in the AdCom report. RECON will be assisting the conference committee via the guidelines and planning visits to the proposed sites in 2006-2007.

e. No additional future OCEANS sites were formally proposed at the meeting.

Symposia & Workshops

Homeland Security Technology Workshop is scheduled for December 6-8, 2005 at the Marriott Hotel, Newport, RI. This is the third in the series, organized and Chaired by Pam Hurst and Bob Bannon. Information on registration and the program is available on <www.oceanicengineering.org> and click on conferences. Abstracts are due September 14.

The Fourth International Workshop on Scientific Use of Submarine Cables & Related Technologies, February 8-10, 2006 in Dublin Castle, Dublin, Ireland. Bob Bannon is a principal organizer and chair. Information and Call For Papers is available on the OES web site <www.SSC06.com>

Underwater Technology Symposium, UT '07: The Underwater Symposia in Japan were held in '98-'00-'02 and in Taiwan in '04. Tamaki Ura suggested that the Underwater Technology Symposium be moved to 2007 so that it will not conflict with the other even-numbered years, Asia-Pacific OCEANS conferences. Proposed dates for UT'07 are 18-20 April 2007, with plans to follow it with a workshop on April 23 in China to develop the possibility of the UT conference going there in '09.

Chile-US Workshop on Ocean Engineering

The Chile-US Workshop on Ocean Engineering is back on track. Prof. Victor Gallardo, one of the principal organizers, has been very busy on major projects with CORE (Consortium for Oceanographic Research and Education). He has a leading role in the Census of Marine Life global program sited at CORE, dealing with Marine Biodiversity. One of the needs is to build capacity for developing nations to enable them to have the technical capability and means for development and utilization of ocean resources and to comply with several issue-related conventions. The Ocean Engineering Workshop planned at Universidad de Concepcion can advance Chile's capacity and serve as a pilot project for other developing nations. The plan is to prepare a proposal to seek funding for the Workshop. A new target date is tentatively for the Winter 2006-2007 (Summer in Chile).

Table 1. PROPOSED OCEANS CONFERENCE SITES

NORTH AMERICAN CONFERENCE		INTERNATIONAL CONFERENCE	
SITE	STATUS	SITE	STATUS
05 WASHINGTON, DC Barry Stamey, Steve Holt, Fred Klein	JOAB	05 BREST, FRANCE Rene Garello	JOAB
06 BOSTON John Irza	JOAB	06 SINGAPORE John Potter, Arjuna Balasuriya	JOAB
07 VANCOUVER Jim McFarlane	JOAB	07 ABERDEEN, SCOTLAND John Watson, Brian Horsburgh	JOAB
08 QUEBEC Ferial El-Hawary	JOAB	08 KOBE, JAPAN Tamaki Ura	RECON
09 BILOXI Jerry Boatman, Jerry Carroll	JOAB	09 BREMEN, GERMANY Christoph Waldmann	RECON / JOAB
10 SEATTLE Bob Spindel, Norm Miller	JOAB	10 SYDNEY, AUSTRALIA Mal Heron, Peter Gough, Brian Ferguson	RECON
11 HAWAII John Wiltshire, Liz Corbin	RECON	11 SPAIN Jesus Manuel de la Cruz	RECON
12 PROVIDENCE Pam Hurst	RECON	12 ASIA Open (CHINA, KOREA - Tamaki Ura)	RECON
13 SAN DIEGO Kim McCoy	RECON	13 FRANCE, ITALY Open (GENOA? – Andrea Trucco)	RECON

Proposed OCEANS Sites

Proposed OCEANS Conference Sites ('05-'13) are listed above. Those listed under RECON are currently under review and subject to MTS review and approval if they are in the North American sector.

Acknowledgements

Lastly, I would like to thank all of you who sent good wishes after my knee replacement surgery, And, thanks to Glen

Williams and Robert Wernli who ably substituted for me at meetings in Houston and Brest, and provided substantial inputs to this report.

The OES membership is invited to propose new venues for OCEANS conferences, symposia and workshops and provide the supporting information for RECON follow up.

Semper Fi

**Joseph R. Vadus
VP International**

**Oceanic
Engineering
Society**
Distinguished
Technical

Achievement Award

1975 Robert Frosch
1976 Werner Kroebel
1977 Howard A. Wilcox
1978 Richard K. Moore
1979 David W. Hyde
1980 Neil Brown
1981 No Award
1982 Ira Dyer
1983 Alan Berman
1984 John B. Hersey
1985 William N. Nierenberg
1986 Robert J. Urick
1987 James R. McFarlane
1988 Chester M. McKinney
1989 Victor C. Anderson
1990 Robert C. Spindel
1991 Henry Cox
1992 Arthur B. Baggeroer
1993 William J. Plant
1994 Edmund J. Sullivan
1995 Mack O'Brien
1996 Frederick H. Fisher
1997 Newell Booth
1998 Burton G. Hurdle
1999 William M. Carey
2000 Albert J. Williams
2001 Werner Alpers
2002 James Candy
2003 Georges Bienvenu
2004 John P. Craven

**Distinguished Technical
Achievement Award**
Oceanic Engineering Society
OCEANS 2005



William M. Carey Ph.D.

William M. Carey (M'85-SM'91-F'96) received the B.S. degree in Mechanical Engineering, the M.S. degree in Physics, and the Ph.D. degree in Nuclear Science from The Catholic University of America, Washington, DC, in 1965, 1968, and 1974, respectively.

He was the Editor and currently serves as an Associate Editor of the Journal of Oceanic Engineering. He is also an Associate Editor for Underwater Acoustics, the Journal of the Acoustical Society of America. Currently he is a Professor of Mechanical Engineering at Boston University, an Adjunct Professor of Applied Mathematics at the Rensselaer Polytechnic Institute, Troy, NY, an Adjunct Scientist at the Woods Hole Oceanographic Institution, and a Physicist with the Naval Undersea Warfare Center. Previously, he was a Physicist with the Advanced Research Projects Agency and was assigned to the MIT Department of Ocean Engineering, where he taught Acoustics. He has also been a Research Physicist and Engineer at the Naval Underwater Systems Center, The Naval Oceanographic Research and Development Activity, and the Naval Research Laboratory. At the University of Chicago's Argonne National Laboratory, he was an Associate Scientist and Section Manager of acoustic surveillance. He has been a consultant to both industry and government in the areas of nondestructive testing, nuclear science/environmental measurements, and applied ocean acoustics.

Dr. Carey is a Fellow of the Acoustical Society of America, a full member of Sigma Xi, a member of the Connecticut Academy of Science and Engineering, and also a member of the Cosmos Club. In addition to being an IEEE-OES Fellow he has also received the IEEE-Oceanic of Engineering Society's Distinguished Technical Achievement Award and an IEEE Millennium Award.

Fellow Award: Albert J. Williams

Albert J. Williams 3rd was born in Philadelphia on October 17, 1940. He graduated from Germantown Friends School in 1958, from Swarthmore College with an AB in physics in 1962, and from Johns Hopkins University with a Ph.D. in physics in 1969. Sandy, as he has been called since birth, married Isabelle Phillips in 1963 and they have a daughter, Helen Isabelle born in 1981. He came to Woods Hole Oceanographic Institution as a Postdoctoral Investigator in 1969 and was appointed Assistant Scientist in 1970. He has been Associate Scientist, Senior Scientist, Department Chair of Applied Ocean Physics and Engineering, and since January 2003, Scientist Emeritus, all at Woods Hole Oceanographic Institution. His research has used novel measurement techniques that he developed to observe oceanic



microstructure, turbulent mixing, and benthic boundary layer processes. He observed salt fingers in the Mediterranean outflow in 1972 and added an acoustic velocity sensor to his free drifting shadowgraph probe to reveal shear at density interfaces. He has extended his current measurement technique to a modular current sensor, MAVS that is low cost and can measure directional wave spectra as well as current and turbulence in the boundary layer. This sensor is marketed by a company, Nobska Development, Inc., that he founded in 1997. He enjoys travel, with his wife, and sailing and gardening. He is past chairman of the Current Measurement Technology Committee of the Oceanic Engineering Society and recipient of the Distinguished Technical Achievement Award for the year 2000.



IEEE Oceans'05 Europe Conference & Exhibition Oceanic Engineering in Europe.

The IEEE Oceans'05 Europe Conference & Exhibition in Brest, France – June 19-23, 2005 - started the new series of two Oceans conference per year. We were, for quite a while, afraid of being undersold due to the unusual dates of the conference, to concurrent events - even in Brest – and to the strong delegate's custom of going to an Oceans conference at the beginning of the Fall season. The relatively small number of abstracts and then of papers we received is a reflection of this conjunction of facts. Nevertheless, the conference presented a very strong scientific program and a quite busy exhibit and ended up with a substantial surplus. Delegates, attendants and exhibitors enjoyed the warm, cozy and friendly atmosphere of Le Quartz conference Center. On top of the usual Technical Sessions (including Tutorials and a Student poster Competition) and of the Exhibit area, the Conference hosted two main associated meetings: the IEEE/OES Administrative and Technical Committees and the Marine Board of the ESF (European Science Foundation). This left the opportunity for the leaders of the two institutes to meet and exchange ideas.

The Oceans conference is a forum where researchers and engineers, academic institutions and companies are exchanging ideas or new concepts. The ocean is a very complex and difficult place yet to fully discover. Therefore, the highest and most sophisticated technology is necessary for this exploration which is as complicated as the spatial odyssey. Nevertheless the goal remains a better understanding of this vast and fragile environment and our (the human kind) interaction with it. Hence, a very large number of domains are present in any Oceans conference: underwater technology from AUVs to

data acquisition, processing and communication, theoretical developments (models, methods) or concerns closer to the human being (marine pollution, mammals –cetaceans - behaviour, ...).

Oceans'05 Europe, as usual, devoted a large part of the conference to underwater acoustics processing and systems (AUVs, ROVs, ...). But, the conference was not restricted to these classical domains of instrumentation and offered lots of openings for the environmental concerns – oceans remote sensing, oil spill monitoring, biotechnology, living resources - or the societal impacts of marine policies – coastal zone management, marine safety and security, etc. Another field linking the instrumentation approach and the policy makers dealt with data, data connections and management.

Technical Sessions

From a statistical point of view, we had 254 papers presented out of 345 abstracts received. We had 17 graduate students present for defending their Posters. The papers were presented during two and a half day within 62 sessions. These sessions were held in 6 or 7 rooms in parallel. For what the following statistics could mean the average attendance was around 30 persons per room with a high at 56 and a low at 7. Therefore we can claim that the attendance in the session rooms was exceptionally high and the level of exchanges between all delegates and exhibitors as well was quite unusual. The conference proposed a very successful series of 6 high level Tutorials on the first day with a high participation of delegates (mean attendance of 13 persons).

Exhibit

We had 48 booth, 8 of which were offered to either the next Oceans conferences or other participating societies (City of Brest, Oceanology International, OES, Imarest, ...). We had around 150 exhibitors (many companies came with 2 or 3 persons). The attendance was quite important from the delegates: having the coffee break in the exhibit space helped a lot. We had also many visitors. It is difficult to give a number as the entrance was free. 80 of them registered their name, but at least 2 times more visited the place. The registration of all regular participants (excluding the free ones) being around 650 persons altogether (i.e. with exhibitors), we probably had around 800 visitors on the booth during the 3 days of the event.

Local Arrangements

In light of the small hotels, European customs, and the uncertain number of participants, we did not book blocks of rooms, but negotiated prices for rooms that were held up to a month prior to the conference. The on-line reservation service was used to make 133 room reservations in 8 different hotels. These reservations accounted for 658 room-nights (459 single, 187 double and 12 triple) for an overall 57,000 € of expenses. We had very few errors and no-shows. We conclude that a large number of delegates made reservations directly with the hotels of their choice (and paid a higher rate!). A fair estimation would double the figures given above.

The organizing committee intended that the Oceans'05 Europe Conference would be a place for exchanges and encounters and that it would serve the main participants – scientists, engineers, and exhibitors – as a link to the local culture and community. The main goals of the local arrangements committee were facilitating

the everyday life of the delegates, swiftly answering their questions and requests, and delivering high quality services. For these reasons members of the organizing committee were almost continuously present in the IEEE/OES booth and employees of the conference center were visible and easily available in the Exhibit space. Access to the Exhibit was free and no guard was needed. Badges were not checked at the session room entries. A PC, a printer, and a photocopier were available in the OES booth and were frequently, but not excessively used. We had some requests for cables and outlet converters, which were satisfied. Besides making the lives of participants easier, it increased the number of new subscriptions by making the booth more attractive and useful.

It is very important to have a friendly and efficient team who have local knowledge and who are bilingual. Just as important, the team members need to be on the same wavelength as the OES. Two people filled this role during the OCEANS'05 Europe Conference and were an enormous help both to the people running the OES booth and to the participants in the conference.

Conviviality and warm welcome are a trade mark of Breton people: we tried to live up to the expectation and we prepared a series of outstanding social events: the ice breaker at Oceanopolis, the Gala Banquet at the Naval Academy, the Exhibit and the City hall reception. These Social events were greatly appreciated and all of those attending will keep a vivid memory of these fabulous times. After this week of hard work and convivial meetings, the weather having been very kind with us, Brest will be reminded as the Sunny City of the West.

**René Garello, General Chairman
Oceans'05 Europe**

Officer Nominations Sought

The IEEE Oceanic Engineering Society elects new officers at the last regularly-scheduled Administrative Committee meeting each year. This year we expect to elect officers called for in the new Constitution. Consequently, we are seeking nominations for the following offices:

- The Vice President for Professional Activities must be elected for a two-year term. This office must be filled whether or not we vote to change the Constitution. The remaining offices must be filled if the new Constitution is adopted.
- The Vice President for Conference Development must be elected for a two-year term,
- The, the Vice President for Conference Operation must be elected for a one-year term,
- The Editor-in-Chief must be elected for a two-year term, having already served one year of his three-year term.
- The Secretary must be elected for a one-year term, and,
- The Treasurer must be elected for a two-year.

To nominate a candidate for any of the offices, please forward the following information to the Chair of the Nominations

and Appointments Committee.

- A brief biographical sketch including the candidate's IEEE Member Number.
- A Position Statement giving the candidate's view of the Society and plans for activities for the coming term.

The candidate should plan to be present for the Administrative Committee meeting in Washington, D.C. just before OCEANS'05 Americas MTS/IEEE.

Qualifications for each office are in the Proposed Bylaws.

Self-nomination is encouraged.

If you have any questions, please ask the undersigned.

Thomas Freud Wiener, Sc.D., LSMIEEE
Junior Past President, IEEE Oceanic Engineering Society
Chair, IEEE OES Nominations and Appointments Committee
2403 Lisbon Lane
Alexandria VA 22306 U.S.A.
+1 703 768 9522

Oceans '05 Europe – Opening and Plenary



Conference Chair Rene Garello



IEEE-GEOSS Chair Jay Pearlman



OCEANS'05 Washington Tech Program Co-Chair Joe Czika



OCEANS'06 Singapore General Chair Arjuna Balasuriya



OCEANS'07 Aberdeen General Chair John Watson



OES President Jim Barber at Ribbon Cutting Exhibition



OES President Jim Barber



Plenary Speakers

Exhibits & Reception



Bill Carey, OES Distinguished Service Award



Jim Barbera Presenting Award to Tom Wiener at CityHall



Joelle Garelo at CityHall



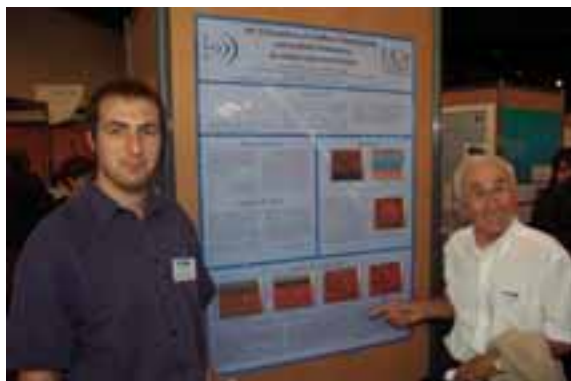
Ken Ferer, Bob Bannon, Peckhold-Canada at OES Booth



OCEANS'07 Aberdeen Booth



Sandy Williams - New IEEE Fellow



Student Poster Author with Pierre Sabathe



Toscano-Jemenez and Norman Miller at Student Poster

AdCom Dinner & Banquet



AdCom Dinner, Jay Pearlman, Wife & Daughter, Manell Zakharia and Jim Barbera



Admiral, French Naval Academy Gala Dinner



Chris DeMoustier, Diane DiMassa and Elizabeth Creed at the AdCom Dinner



Gala Banquet



Jacques, Rene, Mayor of Brest, and Jim



Most capable hands, Söig Siberal



Rene Garello



Stan Chamberlain, Michelle and Pierre Sabathe

Aboard Le Recouvrance



Bob Wernli, Lucy Maltz, Jim & Pat Candy, and Diane DiMassa



Bon Voyage



Claude Brancart at the helm



Jerry, Sharon, Jim, Peggy, Van and Joe



Joe & Van Czika



Jerry Carrol



Haul-er-in!



Skipper, Claude, Fred & Jerry



Stan Chamberlain

OCEANS '05 Europe Student Poster Program

A very fine display of posters was presented by 17 students for the Student Poster Session at OCEANS '05 Europe. 24 abstracts were received from Asia, Europe, Canada and the USA. 18 abstracts were accepted. However one student had to cancel out. An additional student from Brest presented a poster, but was not included in the poster judging. Once again a wide display of topics was presented and represented very interesting work. All of the posters were presented by graduate students. The Student Poster session was organized by Jean-Marc LeCaillec, ENSTE-Bretagne. The posters were displayed in a fine location in the Exhibits area of LeQuartz Conference Center and were heavily visited by the Conference attendees. The posters were:

Sara Adams - Memorial University of Newfoundland, St. Johns, Canada

“Environmental monitoring of a fish processing effluent plume in Coastal Newfoundland waters”

Philip Barclay - University of Canterbury, Christchurch, New Zealand

“MAP estimation of seafloor topography using multifrequency synthetic aperture sonar”

Tom Fedenczuk - University of Hawaii, Honolulu, Hawaii, USA

“Real Time Ocean Research Education: Methods and technologies for outreach during a ship-based research cruise”

Jose Garcia - University of Hanover, Hanover, Germany
“Accurate Positioning for Underwater Acoustic Networks”

Alan Hunter - University of Canterbury, Christchurch, New Zealand

“Towards more accurate shadow modeling in simulated SAS imagery”

Viorela Ila - University of Girona, Girona, Spain
“VLSI Architecture for Underwater Robot Vision System”

Laurent Marrec - Ecole Nationale d'Ingenieur de Brest, Brest, France

“In-situ optical fiber sensors for temperature and salinity monitoring”

Ruslan May - State Oceanographic Institute, St. Petersburg, Russia

“Simulation of climatic significant nonlinear tidal phenomena in the Euro Arctic Seas”

Eva-Marie Nosal - University of Hawaii, Honolulu, Hawaii, USA

“Pair-wise processing for localization of multiple broadband CW sources”

Dazhi Piao - Chinese Academy of Sciences, Beijing, China



Student Poster Winners

Edward Pilbrow - University of Canterbury, Christchurch, New Zealand
“The effect of space and time correlation on the underwater acoustic MIMO channel capacity”

Edward Pilbrow - University of Canterbury, Christchurch, New Zealand

“Autofocus of Active Beacons for the Towpath of a Synthetic Aperture Sonar”

David Redpath - Heriot-Watt University, Edinburgh, Scotland, UK

“A methodology for underwater video classifier design and comparison on limited data sets”

Stefania Repetto - University of Genoa, Genoa, Italy
“High-Resolution 3-D imaging by a sparse array: array optimization and image simulation”

Sairjn Saragapani - University of Rhode Island, Narragansett, Rhode Island, USA

“Measurements and Modeling of the Target Strength of Divers”

Yoshie Takase - Kanagawa University, Yokohama-shi, Japan
“Real-time sonar system using acoustic lens and numerical analysis based on 2D/3D parabolic equation method”

Manuel Toscana-Jimenez - University of Seville, Seville, Spain

“If a Nuclear Accident occurs, how will the radioactive spots be transported by the ocean?”

YaoTing Tseng - Curtin University of Technology, Perth, Australia

“Implementation of Genetic Programming toward the Improvement of Acoustic Classification Performance for Different Seafloor Habitats”

Christophe Viala - Semantic TS, France
“Real-time geoacoustic inversion of large band signals”
(Not in competition)

Once again judging of the posters was a challenge, but the judging team was able to agree on a slate of top posters. The poster awards were presented at the Banquet at the Naval Academy on Wednesday evening. The program was led by Prof. Rene' Garello, who introduced his honorary CoChair, RADM Pierre de Roquefeul. Adm Roquefeul then presented the First Place Award to Miss Eva-Marie Nosal. This award was sponsored by Thales Underwater Systems. Prof. Garello then introduced the Chairman of the French Section of IEEE who presented the two Second Place Awards to Stefania Repetto and

Manuel Toscana-Jimenez. Four Third place awards were presented. Prof. Garello introduced Mr. Pierre Sabathe, Chair of OCEANS 1998 in Nice, and Mr. Norman D. Mille, IEEE/OES Student Activities Coordinator. They in turn presented awards to Philip Barclay, Jose Garcia, Alan Hunter, and Laurent Marrec. All of the students were asked to stand and were given a round of applause. This was a fitting end to the 16th Student Poster Session.

Norman D. Miller

From CoCoPo to JOAB: A new era in Oceans Conferences.

René Garello, AdCom member, co-chair of the JOAB Committee

In early 2001, Tom Wiener, the former president of the OES, asked me to head a committee to formalize our conference activities, finding the proper balance between the responsibility of the sponsoring society and the authority and autonomy of the local organizing committee, and improving the management of our conferences so that our technical, professional, and financial goals are met.

This first committee, which I named CoCoPo (Committee on Conference Policies) had four main objectives:

- Issue #1: Conference Guidelines
- Issue #2: Multiple Conferences
- Issue #3: Conference Benefits
- Issue #4: Conference Regional Support

Cocopo included MTS members and rapidly came up with answers directed to the four issues stated. It was quite clear that the conference guidelines (agreed upon in 1999) were an extremely good starting point. Nevertheless, the guideline application needed to be more stringently imposed on the local organizing committee. Indeed, in order to keep a level of continuity from conference to conference, a complete set of tools needed to be developed: in particular a permanent Technical Program Committee had to be created, a first database of conference "facts" (topics, attendees, exhibitors, ...) had also to be created, a website link had to be developed, and a metric for assessing the quality of a conference had to be developed.

All agreed on experimenting on a two conference-a-year concept. The first one to be in 2005. The scheme that was selected is the following: an Oceans Conference every year in Northern America with the participation of MTS, an alternating conference every other odd year in Europe and every other even year in Asia-Pacific, only sponsored by IEEE/OES. I am pleased, as general chairman of the first of this new series of OCEANS conferences – IEEE Oceans'05 Europe in Brest, France – to confirm that this scheme was very successful and highly beneficial.

The parameters for defining a metric for conference benefits are still under discussion. We need more data and criteria to design a model that would consider the uniqueness of the varied areas (Americas, Europe, Asia-Pacific) for the proposed venues.

On the fourth issue, we have seen a growth trend in Europe raised by the prospect of hosting an OCEANS conference. New

chapters have been formed: where we had only two (France, Norway) and then one when the Norwegians dissolved because no conference was granted to them, we have now 4 to 5 (with the addition of Italy, Spain and soon Germany and UK).

In order to implement these new concepts, CoCoPo evolved, by mid 2002 - into a new structure: JOAB for Joint Ocean Advisory Board (Dick Butler, MTS and René Garello, OES, co-chairs). The idea was, at the same time, to create the tools necessary for insuring a sustainable procedure for the OCEANS conferences and to support the coming "future" ones. The first in line were the 2005 conferences. Our first goal was to select a Web contractor to assist the local committee to go all electronic (from abstract to Proceedings), but also to begin implementing all the tools for allowing a smooth transition between conferences (pertinent and mandatory documents, database, mailing lists, ...). The second subject under consideration was the use of a contractor (with different roles) vs a paid consultant. In this latter case the consultant would have interacted with the JOAB chairs, the advisors and the local committees (IEEE GRSS model). In the case of single contractor, the discussion revolved around the limitations of their action: should they oversee all aspects of the conference or just be assigned specific tasks (such as hotel negotiations for instance). Nothing is easy: it took us a year and a half to finally agree on the definition and the selection of both contractors.

In the meantime, a full definition of the roles and relation between JOAB and RECON (the Reconnaissance Committee headed by Joe Vadus) was discussed and agreed on. A charter describing both bodies was written (cf. attached documents). To make a long story short, the conference venue selection and committee process starts about 5 years prior to a given conference. RECON either is solicited or solicits a given venue (or venues if several candidates); it's main role is then to support the core of the local committee to provide an estimated budget, a full set of documents on the venue itself (conference center, hotels, local arrangements, ...), a theme for the conference, a complete organizing committee, the local support and local arrangements for the attendees. A formal presentation to JOAB, RECON and MTS/OES leaders is scheduled 4 years prior to the conference. JOAB is then in charge of making a recommendation to the MTS and OES Board/AdCom in order to grant (or

not) the conference to the venue. If agreed, a letter of appointment and a Memorandum of Agreement are signed between the presidents of the societies and the general chair of the conference (cf. attached documents). JOAB is then in charge of advising/supporting/counseling the upcoming conference.

Coming back to the Web Company and the management contractor, we finally selected Veraprise Inc. for the former and IEEE CMS (Conference and Management Services) for the latter. In this case we asked for an “a la carte” service depending on the needs of the local committee. Veraprise proved to be an extremely valuable choice as all the tools for handling the technical part of the conference were delivered in time and tested in real-life context: the OCEANS’05 conferences (Europe and Americas). Again, as general chair of Oceans’05 Europe, I can testify of the net benefit we got from this move. Apart the first step in the continuity and the corporate memory we are seeking, a substantial economy was indeed realized. The next step will be to implement a delegate registration tool in order to be able to cross-check the author’s database more easily.

We have achieved in 4 years a great part of the challenge that was proposed by Tom Wiener. We have evolved from a first concept – the advisors revolving around a paid consultant – to a more internal to the societies approach: a Web exchange between the local organizing committees, the advisors and the data. JOAB has still lots of “bread to cut on the table”, as we say in French: define a consistent and fixed set of technical topics to propose to the prospective authors (the continuity challenge), propose a new “Procedures and Policies” document that will supersede the present guidelines, conduct a detailed survey of the conferences to identify critical parameters and develop a set of success criteria.



René Garello (M’85; SM’96) was born in 1953. He received the Ph.D. degree in Signal Processing at the Institut National Polytechnique de Grenoble (INPG) in 1981. From 1982 to 1984 he worked as a Research Associate at Aeronomy Lab, National Oceanic and Atmospheric Administration (NOAA) at Boulder, Colorado (USA). He joined the Ecole Nationale Supérieure des Télécommunications de Bretagne (ENST Bretagne), Brest, France in 1985. In 1988 he became Professor in this engineering school in the

field of signal processing and image processing and in 1995, Prof. Garello obtained his Habilitation (HDR; Habilitation to Supervise Research).

Prof. Garello (together with Jean-Yves Jourdain, Thomson Marconi Sonar) has started a French IEEE/OES chapter in 1993 of which he became chairman in 1995. Since 1997 this chapter has been extended to all of Region 8 (except Norway), i.e. around 300 active members. He was in charge of the Student Poster Competition in the Organizing Committee for OCEANS’94, held in Brest, France. He has been co-organizing this competition (together with Norman Miller) for the following OCEANS’ series of conferences. For OCEANS’98, held in Nice, France, he was co-chair of the Technical Program Committee, Chair of the publicity Committee and Chair of the Student poster Competition. He is also, since 1997, Associate Editor for Region 8 of the Journal of Oceanic Engineering.

Prof. Garello was an elected AdCom member from 1999 to 2001 and from 2003 to 2005. In the beginning of 2001, he headed the Committee on Conference Policies (CoCoPo) which was in charge of defining a new set of Conference Policies and Procedures in order to insure continuity between the successive OCEANS conferences. This committee jointly held with MTS members defined several new approaches and came up with the concept of two Oceans-a-year (every year in Northern America, every other odd year in Europe and every other even year in Asia-Pacific). In order to implement this plan a new committee was formed: the Joint Oceans Advisory Board or JOAB, of which Prof. Garello is the co-chair. The first actions consisted of implementing a permanent OCEANS Website facility with all the necessary tools for going ALL electronics (from abstracts/papers collection to CD/DVD Proceedings). The second action was the research of an “a la carte” contractor for handling all conference related items not supported by a given local organizing committee (ranging from hotel negotiation to registration supervision).

Prof. Garello was the General Chairman of the first OCEANS of the new Two-Oceans-a-year concept: Oceans’05 Europe held in Brest, France in June 2005.

Prof. Garello is also an active member of the IEEE/GRS (Geoscience and Remote Sensing) Society.

His main research interests lie in Remote Sensing, 2D signal processing, statistical and spectral analysis applied to ocean surface features detection and characterization.



IEEE OES Newsletter Report

IEEE Oceanic Engineering Society (OES) Administrative Committee (AdCom) Meeting

**Brest, France
20 June, 2005**

by Steve Holt (OES Secretary)

The IEEE Oceanic Engineering Society (OES) Administrative Committee (AdCom) Meeting was held at the Le Quartz Convention Center in Brest, France on 20 June, 2005.

The meeting began at 8:30 AM with a call to order and an official welcome from the OES President, James Barbera. The

most interesting of the many issues discussed at the meeting are summarized below:

- Jim discussed the IEEE role in the Global Earth Observations System of Systems (GEOSS) program and the IEEE’s role in it. He mentioned Dr. Jay Pearlman of the Boeing Cor-

- poration and his role in being the main IEEE contact for this program.
- Jerry Carroll gave his Treasurer's Report, and stated that the OES finished the 2004 year with a surplus of \$264.3 K. Our total reserves as of the end of 2004 were \$1,184K. As of the end of April 2005 we had an income of \$115.9K and expenses of \$93K. We have a surplus of \$22.9K for the year. We expect to cover all the conference expenses for the OCEANS EUROPE 2005 Conference in addition to all the support expenses of OES. OCEANS MTS/IEEE 2005 in Washington has the potential of making an adequate surplus as well as being a show case conference.
 - OTC was once again a great source of revenue for OES and special thanks to all the OES members who work hard to make the conference so successful.
 - The year 2005 looks good financially as long as another 9/11 does not occur which is a good reason to maintain adequate reserves should something happen.
 - Claude Brancart mentioned that we should pursue course credit for the tutorials, if possible, for Oceans 2005 in Washington, DC.
 - Elizabeth Creed gave a presentation on the IEEE Expect Now system. More information on this tool can be found at www.ieee.org/education/Expect_Now_IEEE.
 - Christian de Moustier gave his presentation on the state of the IEEE Journal of Oceanic Engineering (JOE).
 - Fred Maltz gave a presentation on the OES Newsletter. After reviewing newsletter content and presenting the cost breakdown for 2005, Fred described his future plans for the Newsletter. This included keeping the new glossy look and increasing the page budget from 96 pages per year to 112.
 - Jim Collins gave a presentation on the OES Chapters.
 - Tom Wiener gave a presentation on OES interaction with the new Oceans Hall being planned for the Smithsonian in Washington, DC.
 - Todd Morrison gave a presentation on the OES web developments. He reported that for the OES Web site in April 2003, there were 700 visits and 3000 hits per month. In April 2005, there were 8000 visits and 25,500 hits per month, along with approximately 200 hours and 16,000 page views. This is an order of magnitude increase in site traffic in two years. Also, he reported that for the permanent OCEANS Web Site, there were seven OCEANS Conferences that are in the Permanent OCEANS Web Site pipeline.
 - The OES AdCom members also decided on a naming convention for the conferences. The new convention proposed and voted on with a motion was: OCEANS 'XX Region - MTS/IEEE - City Name. "MTS" is only used when they are participating. "Region" is one of "Americas", "Europe", or "Asia-Pacific". "XX" is the two digit year. After much discussion, a vote was taken and 11 were for the measure, 7 were against it, and 1 abstained. The motion was thus passed.
 - Sandy Williams gave a presentation on the state of the Technical Committees. There arose a series of motions to seek approval of several new Technical Committee Chairs. Warren Fox was approved to be the Chair of the Modeling, Simulation, and Visualization Technical Committee. Daniel Hanes was approved to be the Chair of the Environmental Applications Technical Committee. Manell Zakharia was approved to be the Technical Committee Vice Chair (Europe) of Underwater Acoustics. Masahiko Furusawa was approved to be the Technical Committee Vice Chair (Asia) of Underwater Acoustics. Jean-Pierre Hermand was approved to be the Technical Committee Chair (Europe) of Sonar Signal and Image Processing.
 - Ken Ferer gave a presentation on the state of OES membership. He stated that total IEEE membership increased again in April, indicating a 0.5% annual growth rate over April 2004. However, the US membership has declined 1.8%. The increase is due solely to non-US growth rate of 4.5%. Overall Society membership is also down 3.8% both in absolute numbers and in individuals dropping a second society. Only nine societies are demonstrating growth while 29 are declining. The OES is one that is growing.
 - Jim Collins gave a presentation on the new OES Constitution and Bylaws. A motion to pass the new Constitution and Bylaws was approved unanimously.
 - Rene Garello gave a presentation on the OAB/JOAB.
 - Several members gave their presentations for the upcoming conferences in Washington, DC (Joe Czika), Boston (Stan Chamberlain), Singapore (Arjuna Balasuriya), Vancouver, British Columbia (Bob Wernli), Aberdeen, Scotland (John Watson), Quebec City (Ferial El-Hawary), Japan, Taiwan, or China (Tamaki Ura), Homeland Security (Bob Bannon and Pam Hurst), and Lithuania (Jim Barbera). Also, Bob Wernli gave a presentation on conferences out beyond 2008.
 - It was noted that there is a need to develop a Policy and Procedures (P&P) Manual for the Society.
 - Steve Holt agreed to continue to gather information related to the OES History Project.
 - Fred Maltz had earlier submitted his report on the OES History Project where he described the history of the OES Newsletter.
 - Steve Holt gave a request for various types of formats and structure to be used by all in the writing of reports. He was looking for consistency in especially how Microsoft Word documents are written and PowerPoint presentations prepared before they are sent to him.
 - Steve presented several open and closed action items remaining from earlier meetings for discussion. Several were closed and some remained open.
 - In summary, there were nine new motions and seven new action items generated at this meeting:
 - The meeting was then adjourned at 4:30 PM on 20 June, 2005.

Obituary Notice

Frederick H. Fisher (SM '70)

Research Oceanographer and Ocean Inventor:

Dr. Frederick Hendrick Fisher, co-designer of FLIP (FLoating Instrument Platform) and a leader in ocean sound propagation research at Scripps Institution of Oceanography, University of California, San Diego, died Wednesday, May 4, 2005, at Kaiser Hospital in San Diego, of a stroke. He was 78 years old.

Fisher began his career at Scripps Institution of Oceanography's Marine Physical Laboratory (MPL) in 1955, conducting Ph.D. thesis research. Following a year as a Research Fellow at Harvard University, he rejoined Scripps's MPL in 1958 as an Assistant Research Physicist, and became a Research Oceanographer and Lecturer in 1968. During 1963-64, he served as Director of Research for Havens Industries, San Diego, working on desalination of seawater by reverse osmosis. He was Professor and Chairman of the Physics Department at the University of Rhode Island in 1970-71, then returned to MPL where he became Associate Director in 1975, and Deputy Director in 1987. Although he retired in 1991, he remained an active member of Scripps and the acoustic research community until his death.

Early in his career, he was scientist-in-charge of sound propagation research that led to the need for the development of FLIP, a stable research platform for work at sea. With co-designer Fred Spiess, Fisher created the concept of the 355-foot manned ocean buoy, FLIP, in the early 1960s. FLIP is a one-of-a-kind research vessel that literally "flips" from a horizontal to vertical position in the ocean to become a stable surface for science research. Fisher was scientific officer responsible for developing the "flipping" operation, using 35-foot-long, 1/10th, scale models. He led numerous seagoing operations aboard FLIP following its launch in 1962.

"Scripps Oceanography has lost a brilliant collaborator and an ocean inventor with a tremendously keen sense of innovation," said Dr. Charles Kennel, director of Scripps Institution of Oceanography. "Fred's development of FLIP and his numerous contributions to oceanography are honored parts of the history of ocean science. His colleagues and I will truly miss his human spirit, his contagious enthusiasm for ocean science, and his devotion to Scripps."

In addition to his contributions to FLIP, Fisher also had a long and distinguished scientific career, leading research efforts



in underwater acoustics, physical chemistry, ocean technology and oceanography. He led a number of Navy-funded research cruises studying long-range propagation of sound in the ocean.

Since 1957 he had been leading research programs devoted to high-pressure measurements related to the physical chemistry of sound absorption in seawater due to magnesium sulfate and other salts. As he put it, he "spent his professional lifetime squeezing epsom salt". His interest in the low-frequency anomalous sound absorption in the ocean below 1 kHz led to the discovery of boric acid as the cause of the low-frequency relaxation. He supervised V.P. Simmons'

PhD thesis on the boric acid low-frequency acoustic relaxation in the ocean, and C.C. Hsu's PhD thesis on the effect of pressure on chemical sound absorption and ion-pairing in the ocean. He proudly displayed the tools of his trade on the license plate (EYEWASH) of his favorite car, the spacious Lincoln Continental.

At Scripps, Fisher served as vice chairman of the Scripps Staff Council, and in 1975 he initiated interest in preserving and restoring the George H. Scripps Memorial Marine Biological Laboratory building - the first building erected in 1910 on the Scripps La Jolla campus - for its historical significance. The Irving Gill-designed building was listed in the National Register of Historic Places in 1977, and became a National Landmark in 1982.

Friendly and outgoing, Fisher was a Hall of Fame tennis player, becoming an NCAA national intercollegiate doubles champion for the University of Washington in 1949. He received a B.S. degree in 1949 and a Ph.D. degree in 1957, both in physics, from the University of Washington, Seattle. He was a midshipman at the U.S. Naval Academy from 1945 to 1947.

Fisher was a member or fellow of many professional scientific organizations, and the author of numerous scientific publications. Most notably, he was a Fellow of the Institute of Electrical and Electronics Engineers (IEEE) that honored him on three occasions during his career, with the IEEE Millennium Medal Award in 2000, the IEEE-Oceanic Engineering Society Distinguished Technical Achievement Award in 1996, and the IEEE-Oceanic Engineering Society Distinguished Service Award in 1991. He was one of the few members of the IEEE-OES to receive all three awards. He served as the fourth Editor-in-Chief of the IEEE Journal of Oceanic Engineering from 1988 to 1992. Fisher had a distinguished record as the Editor by focusing the Journal to be a publication of high quality devoted to the fundamental application of Oceanic Engineering principles. He brought the use of special technology issues to the fore

¹After more than 40 years of continuous service, FLIP continues its role today as a valuable component of the Scripps fleet. FLIP serves the ocean research community in a wide variety of oceanographic investigations at sea, including research on the way water circulates, how storm waves are formed, how seismic waves move, how heat is exchanged between the ocean and the atmosphere, and how underwater sound is made by marine animals. An extremely stable platform, FLIP was designed to sustain 30-foot waves in the open ocean and has actually survived 80-foot swells with only minor damage.

²Eye Wash (boric acid solution).

and demonstrated their value while building on the works of his predecessors. He was a constant force in Journal matters, serving as Editor Emeritus while mentoring two of his successor Editors and helping launch a program to publish declassified archival papers in the Journal.

He was elected in 1976 to the Executive Council of the Acoustical Society of America and served as vice-president (1981-82) and President (1983-84) of the Acoustical Society of America, and as a member of the Governing Board of the American Institute of Physics from 1985 to 1991. In addition, he was Associate Editor for the Journal of the Acoustical Society of America from 1969 to 1976

Fisher is survived by four sons, Bruce of Santa Barbara, Mark of Point Loma (San Diego), Keith of Riverside, Glen of Point Loma (San Diego), and nine grandchildren. His wife, Julie, died in 1993.



2005 National Ocean Sciences Bowl

The eighth annual National Ocean Sciences Bowl, sponsored by the Consortium for Oceanographic Research and Education (CORE) was held in Biloxi, MS April 23-25, 2005. Once again OES was a sponsor of the event. The event this year was larger, 25 schools, with the addition of a regional competition winner from St. Petersburg, FL. The event began on Saturday evening with a boat cruise and cook-out on Ship Island. The competitions began Sunday morning on the campus of Southern Mississippi Campus-Gulf Park. The competitions lasted until 7:30 PM with Double Elimination Round 4. The competitions resumed Monday morning at the J.L. Scott Marine Education Center & Aquarium in downtown Biloxi with the Double Elimination Rounds 5 and 6. Following a Break, Awards Ceremony I was conducted in the auditorium for the 5th through 8th place winners. RADM West, the Director of Core, gave some introductory remarks and then introduced COL Norman Miller from OES to present the awards that OES sponsors. The team captains came forward and were introduced and presented with a plaque and a certificate. The schools receiving the awards were:

- 5th place - La Jolla High School - La Jolla Surf Bowl
- 6th place - Maui High School - Aloha Bowl
- 7th place - Incarnate Word Academy - Loggerhead Challenge
- 8th place - Santa Monica High School - Los Angeles Surf Bowl

Each school received a gift certificate for scientific equipment and textbooks for their classrooms.

Following Double Elimination Rounds 7 and 8, which were held in the auditorium, a break was taken and then the Final Award Ceremony. ADM Lautenbacher, Director of NOAA, was introduced and showed a very interesting video of all of NOAA's activities and career opportunities in the ocean sciences. The Coast Guard commandant also presented a video on the work of the Coast Guard and the opportunities for careers in the Coast Guard. The program continued with the showing of a video recapping the weekend NOSB activities as a fitting wrap-up for an exciting weekend. The awards ceremony for the 1st through 4th place winners then took place. The winning teams were:

- 1st place - Cranston High School - Quahog Bowl
- 2nd place - Lincoln Sudbury High School - Blue Lobster Bowl
- 3rd place - Mission San Jose High School - Otter Bowl
- 4th place - Oconee High School - Southern Sting Ray Bowl

The final award given each year is the James D. Watkins Sportsmanship Award. This award is offered to the team who demonstrated the best sportsmanship throughout the NOSB finals. The team is selected a vote of the students. The winner for this year was Langham Creek High School in Houston, TX, the winner of the Dolphin Challenge Bowl. This was their first time in the finals and was a fitting award for them.

Norman D. Miller
Student Activities Coordinator

Visit the OES online, link to the IEEE homepage:
<http://www.oceanicengineering.org>

JOCARA



Editor's Note: John Potter is a Senior Member of the OES and Co-Chair with Arjuna Balasuriya for the Oceans 2006 Conference to be held in Singapore in May 2006. He and his family's mission is to explore remote corners of the Indian Ocean, by sailboat, working with local and international researchers on coral reef systems, marine mammals and fish to promote awareness of the plight of the oceans. The OES is one of the sponsors for this mission. The last issue of the newsletter, Spring 2005, contains some of his reports from sea. We wish him and his family a safe return to Singapore, and looking forward to seeing him in Washington, D.C. at OCEANS '05.

Jocara Newsletter July 21, 2005

At 14:45 UTC on 20 July Jocara encountered the motor tanker MT Shoshangana. First appearing on radar, she shon a light on us, indicating that she had seen us on radar and was looking for visual confirmation. We hailed her on VHF and she responded, which was already a novelty given our recent experiences with passing vessels. We explained the cause of our lack of navigational lights and she asked if we required assistance! This was becoming surreal! We shamelessly requested 100 litres of diesel and Shoshangana immediately made arrangements for us to come alongside and receive 5 jerry containers of fuel, each of 25 litres. It transpired that she had been alerted to our situation by the UK coastguard some 4 or 5 hours earlier and that she was on the lookout for us. We exchanged papers and separated an hour later.

We are now motoring directly for Gan with enough fuel to arrive under our own steam.

At 00:20 UTC 21 July Jocara was at 0 deg. 53.7'S, 075 deg. 23.1'E, making 4 kt in near-zero wind from the W, 133 n.m. from the Pass into Addu Atoll, leading to Gan.

All now very well on board, with a god night's sleep for the first time in a week. Now begins the process of working out how on earth we proceed from Gan, without mast or sails!

The crew of Jocara.

P.S. Don't forget to check out our website at <http://www.jocara.net> for updates, pics and short movies, also archived newsletters. Anyone can join the list or unsubscribe by sending an email to mandar@arl.nus.edu.sg with the subject line 'subscribe jocara newsletter' or 'unsubscribe Jocara newsletter' as appropriate.

Jocara Newsletter July 19, 2005

As of 09:30 UTC 19 July we are sailing south in a WNW wind of 10 knots, unable to get closer to Gan than about 145 n.m. because of the adverse wind angle. Our position is 0 deg. 43.57'S, 075 deg. 35.14'E. We have been plagued by squalls, for which we respectfully lower our jury-rigged sail rather than face the disgrace of losing our second mast in the space of a week. So, we're toughing it out, waiting for favourable wind. There's a catch 22 here. If we drop the sail Jocara lurches sickeningly, making sleep impossible. Just staying physically lying down in the approximate area of the bunk is a challenge. If we raise the sail, Jocara steadies in the swell enough to rest, but Caro or I have to be up the whole time watching squall development to be sure to get the other on deck so we can drop the sail in time before the gusts hit. We're a little sensitive about the rigging, you see.

We'd like to think that we've learnt our lesson, but Neptune thinks not, at least not yet. West winds are unusual here for this time of year yet we've been battling them for several days now, clawing our way south while tenaciously hanging on to our longitude so as not to be swept east by the current and away from our destination, which now lies due West of us. We remain hopeful that the next couple of days will bring different and more favourable winds, allowing us to get within motoring range of Gan. The jury-rig sail works amazingly well, but it does not have a very high-tech shape and does not point as high into the wind as one professionally cut.

Meanwhile we've come across some freighters, one of whom responded to our VHF calls with a heavily-accented assurance that he would 'turn to port to miss me' but who wouldn't say anything else despite repeated efforts to open a meaningful dialogue. I'm still wondering if he was referring to the solace of the bottle and faith in the spirits rather than the left-hand side of his boat. We've also seen several fishing vessels, none of whom have shown any interest whatsoever in stopping to help. Today we met up with a Chinese fishing boat in broad daylight. She came over to within 1/4 of a n.m. to take a look at this weird sailboat with a ridiculously short mast and funny Dhow-looking sail plan, but she never answered our HF calls. She responded to our antics waving empty jerry cans on deck (to indicate our pressing need) by revving her engines and dashing away to the safety of the horizon as quickly as possible. Afterwards we enlarged the photos we took and could read

the name; it turns out this is one of the boats licensed to fish in Maldivian waters that the Maldives SAR controller said had been alerted to our position and requirements and which was attempting to rendezvous with us. Right. With a rendezvous style like that, one wonders what it would be like to be spurned.

John, Caro, Casper and Alex (plus Star and Cannelle, who have run out of catfood and are looking increasingly nervous).

Jocara Newsletter July 17, 2005

This newsletter comes rather soon after the last, but we thought you might appreciate news 'hot off the press'.

As of 04:40 UTC 17 July we have jury-rigged our old boom as a mast with an unholy mix of rope, half the world's supply of shackles and several sets of block and tackle. We have used our new mast to raise an improved temporary HF antenna. This morning we raised a sail sideways to make a reaching Genoa giving us 3.5 knots in 15 knots of wind just forward of the beam. We are presently headed towards Gan in Addu Atoll, Maldives. We have 100 litres of diesel remaining, giving us a motoring range of approx. 100 n.m. Gan is 165 n.m. distant. Our position is 0 deg. 19.0'N, 75 deg. 43.46'E. We have moderate wind from the NW and moderate seas, overcast (but clearing) with no squall activity.

If mild and favourable conditions persist we expect to be able to sail within our fuel endurance of Gan. We have asked that vessels should not inconvenience themselves on our behalf at this time. We will continue to post updates. The severity of our situation has steadily reduced from initial alarm (Yes! I finally got to fire off a red flare in anger! And call a Pan Pan!) to managed inconvenience. Let's hope it stays that way.

Meanwhile we've had many countries and authorities piling in with offers of assistance, a truly-heartwarming international response. Vessels from Australia, US, China and India have all become involved in plans to rendezvous with us at some point over the last couple of days, co-ordinated by Ham radio operators from Thailand to Chagos and the Maldivian Coast Guard. It's quite embarrassing to be the cause of such a fuss.

So, our sincere thanks to all of you out there who have leaped to our rescue. You can stop worrying now. I think...

John, Caro, Casper and Alex (plus Star and Cannelle).

Jocara Newsletter July 15, 2005

At 10:30 UTC Jocara's position was 0 degrees 51.99'N and 76 degrees 31.85'E. The weather has improved, we now have about 10 knots from the southwest with a moderate sea. The crew is doing well. We are slowly drifting south whilst we are working on jury rigging our boom as a mast.

We plan to try to head for Huvadhoo atoll as that is the nearest land to us.

The jury rigged antenna is working well and we can get email out and talk to people on the radio.

Richard from the Mobile Maritime Net Southeast Asia has been putting out the word and the Maldives Coastguard is aware of our situation. We'll keep you informed of our progress.

Jocara Newsletter July 14, 2005

At 23:30 UTC on 13 July Jocara was hit by an intense squall at 01 deg. 10.5'N, 076 deg. 36.2'E. Her backstay parted at the insulator swage, dismasting her instantly. The boom was recovered but the mast and rigging entirely lost. No significant hull damage. 2 adults, 2 kids and 2 cats all well on board and in no immediate danger. Now drifting south at 0.75 knot with approx. 180 litres of diesel available, insufficient to reach land. We will try to make it back to the Maldives. Rolling +/- 30 deg. in cross swell, so comfortable it is not. Have jury-rigged a 7m HF antenna and requested assistance (bring us fuel!) through HF nets.

Please keep all sailmail email strictly short and pertinent to rescue. Hopefully we will be able to send and receive limited sailmail in afternoons. Cancel all arrangements, if you have any, to meet us. We will keep you posted as soon as the situation clears. Don't worry, we'll be fine.

Jocara Newsletter July 12, 2005

The engine part arrived, it fitted, and Chilly helped us bolt all the little pieces (and some not so little) back together again. The engine now runs and even works the propeller. Miracles! The carpets will never be the same, but hey! we never liked pink anyway. Jocara cleared out on 10 July with the intention of leaving next morning. That's when it decided to dump squalls on us all night and half the next day. At least it filled the fresh water tanks. Undeterred, we left Gan in unsettled weather in the late afternoon of 11 July and motored out the pass headed for Phuket, maybe by way of a little island called 'Pulau Wei' on the northern tip of Sumatra. So far we've had rain, 0-20 knots of wind (hard to say since the wind instrument no longer works), lightning and bumpy swells. Up all night dodging squalls with everyone feeling a little tender. Even Cannelle looks sick. Jocara has just seen her first dawn at sea for a while; grey, rainy but plugging along east at 3-4 knots in a lumpy sea and a light breeze from the NE, an unexpected direction. Just 1500 n.m. to go, but who's counting at this early stage? Jocara was to be found at 0 deg. 18.5'S, 73 deg. 59.7'E steering 080T at dawn this morning.

Jocara Newsletter July 1, 2005

This newsletter comes to you from a Jocara stuffed with greasy, broken engine parts and oily carpets lying to two anchors for safety just off Gan in the Maldives. Our local mechanic, Chilli, has been very hard-working. He's the only one on board both strong and small enough to crawl into our ATF swamp (aft bilge) to blowtorch the shaft coupling and remove the bolts. With his help we managed to uncouple the shaft and remove the gearbox to reveal a bell housing crammed with shards of torn steel; our damper plate has self-destructed. A week later we've finally managed to order a replacement part (Oh please let it be the right one) to be sent out to us from Florida via FedEx. Since it's not coming via DHL we might even get it. Oliver came out from Singapore for a couple of days bearing wonderful gifts from

friends and replacement air filters for our sampling research. Meanwhile the waiting has not been boring, with a continual stream of water-related breakdowns to test our patience. Fresh water plumbing spouting geysers (several times), leaking camera housings (both video and still), generator cooling pump, a water-soaked wind indicator shorting out... We also had a 30 knot squall that almost took the awning away and another that threatened to put us on the rocks in the early hours of the morning. Otherwise all is well. OK, not quite. We're out of beer, wine, whisky, gin... actually, pretty much every kind of systemic muscle relaxant. So spirits are on the low side at the moment, but will surely be back on top when we get it all together again in a weeks' time. Until then, this is the crew of Jocara signing off.

Jocara Newsletter **June 11, 2005**

There is something magical about this place that removes it from the normal flow of time. At least, that's our only explanation for why more than two weeks have passed since our last newsletter (when it has felt like half that time) and how come we find other cruisers who have been living here for up to 14 months at a stretch. Many return year after year, having become willingly locked into an Indian Ocean cycle, abandoning original plans to circumnavigate, or at least postponing the Cape of Good Hope into some uncertain distant future. From delightful Moresby Island (with its easy access to the outer reef, beautiful corals and bountiful fish) in the atoll of Peros Banhos we moved 25 n.m. to the east on 2 June to explore the smaller, but better-protected, Salomon atoll. The weather has been unsettled with frequent bouts of wind and rain that made Moresby an insecure anchorage. We arrived late in the afternoon, too late to navigate across the bommie-strewn interior lagoon. 'Bommies' are big accretions of coral that rise 10-20 m from the sea bed to lie very close to the sea surface, providing some navigational excitement. We anchored for the night at Takamaka island, intending perhaps to move on to the more-popular Boddam island in the morning. We stayed almost a week enjoying the company of a few other boats, including a couple with sons of Alex's age. There was a fresh-water well, beachside paella, home-brewed beer and cookies baked in a tin over an open fire with live music provided by the international cast of cruisers from Austria, France, Italy, Spain... Finally arriving at Boddam, we met up with about 8 boats still remaining there (most have now left for the Seychelles or Malaysia) and have been quickly assimilated into the local 'Robinson Crusoe' culture of fishing, eating coconuts and playing volleyball at 4 every afternoon. The 'hard-core' cruisers cultivate their vegetable gardens and brew rice wine with their boats tied to bommies in well-protected shallows tight up to the beach. We must move on soon, however, to make our appointments down the road and, looming increasingly large, Singapore. Now we are waiting for a weather window, a little nervous at the reported conditions to the north and east of us. Jocara lies snugly tied to a bommie at 5 deg. 21.3'S, 072 deg. 12.6'E.

Jocara Newsletter **May 27, 2005**

After all the fine calm weather during the whole passage to

Chagos we were a bit chagrined when it rained in squalls for days after our arrival. John turned the awning into a rain collector and our water tanks quickly filled. Whenever the rain eased we have been exploring the many reefs and low-lying islands in the western half of Peros Banhos atoll, wary as there seems to be an offset of almost a mile between our GPS Position and the Chart we are using. Most of the cruising boats in these atolls have moved to the Salomon Atoll (about 30 n.m. to the east) to get better shelter from the SE trades that are expected to fill in any day now. We are therefore pretty much on our own, apart from a few boats we come across scattered about the various islands of this atoll. Still, we've had a chance to share some stories and info with boats 'going the other way' and for the kids to find playmates from time to time. The coral seems badly impacted, presumably from the 1998 bleaching event, with some additional uprooting of large coral heads in the passes from the 2004 tsunami. Still, the fish life in Peros Banhos is good, with lots of groupers and other good-sized fish to catch. Casper is keen to learn to spearfish! There are also many coconut crabs ashore, some with claws the size of my fist. We've been bar-b-queing a lot recently, and had a shoreside bar-b-que over an open fire last night for the first time since Cocos.

Our website has just been updated with all the latest goodies from the Seychelles, including turtle hatchlings, chatty logs and lots of great pictures, so please do visit and let us know what you think by signing our guestbook.

Jocara is now lying to fore and stern anchors (to reduce the rolling from swell) in the lee of Moresby Island at the north of the atoll at 5 deg. 14.6'S, 071 deg. 49.8'E

Jocara Newsletter **May 17, 2005**

Jocara arrived at Peros Banhos, Chagos at noon on 17 May. What a relaxed passage of 8 days it has been. The last few days we motored the whole time as there was only the slightest breath of wind. We caught a few more tuna including the smallest yellowtails we've ever seen! A visit from a booby brought some amusement. The booby started circling Jocara at sundown, looking around the top of the mast for a place to land and deciding the lightning arrestor (which looks like a steel porcupine) would not be too comfortable. It finally settled for a perch on the starboard spreader. A few hours later it was gone, but the next morning we discovered a pile of guano on the solar panel and the dinghy hanging off the davits. As soon as we'd dropped anchor off a beautiful little island covered by coconut palms and surrounded by reefs we were in the water snorkeling to the beach. There's a lot of exploring to do, better get started right away!

Jocara is at 5 deg. 27.6'S, 071 deg. 48.5'E.

Jocara Newsletter **May 14, 2005**

It seems that every time we make a passage, we are surprised. Sometimes pleasantly, sometimes not; the latter more frequent, it seems, than the former. This time we have been pleasantly surprised, at least so far. We expected little or no wind and to have it on the nose when there was. We've indeed had little

wind, but mostly just enough to sail, and so far at good angles. After poking around a turtle foraging site on the Seychelles bank (nothing exciting there) and then a half-day cruising around the 1000 m depth contour looking for Sperm whales (none seen) we finally set our sails for Chagos, 970 n.m. to the east, on the afternoon of 8 May. Since then we've caught a 9 kg Big Eye Tuna (delicious sashimi!) and seen the sparkling phosphorescent trails of dolphins playing in our bow wave on a moonless night while plugging steadily east, riding a favourable current, at about 120 n.m./day. there are some privations; We've completely run out of Sushi Nori (dried Japanese seaweed) so sushi is out of the question. It's a tough life! We've begun chatting to the 30 or so boats in Chagos on the HF radio, now only 300 miles away, picking up gossip and details about which to visit and where the best fishing is. As we'd hoped, there are boats with kids on board. Casper and Alex sorely need some new friends to mess about with. We are all very much looking forward to the tropical island life of Chagos, one of the most spectacular and remote tropical places on earth and much vaunted by cruisers the world over. We are now at 4 deg. 38.5'S, 066 deg. 46.9'E, heading east with maybe 3 days to go.

Jocara Newsletter May 6, 2005

Jocara is filled up to bursting with fuel, water and food, ready for the trip to Chagos. We've cleared out and said our goodbyes to

three brooding brothers (lush green mountain peaks) towering over Victoria and shopped till we dropped in Mahe. We've enjoyed our time in the Seychelles very much. Before the mayhem of running around Mahe getting ready to leave we took a relaxed week around Praslin, one of the neighbouring inner granitic islands, cruising from bay to bay, doing whatever took our fancy. Every snorkel turned up something interesting, nearly always finding juvenile hawksbill turtles and eagle rays. At one anchorage we discovered a path behind the ruins of a house at the shores of a tiny hidden beach. The path led through the forest and over a headland to the other side, revealing a gorgeous beach with crashing surf to play in. Yet another island offered the kids a chance to 'go native', clambering over huge boulders, slashing through jungle and climbing coconut trees to cut down coconuts, tying them together with braided leaves and stalks. Casper baked an awesome coconut fudgecake with the proceeds. We also had a really spectacular dive at a site we call 'cathedral ruins' where we glided between columns and pillars of rocks with pounding surf above injecting sunlit plumes of air bubbles. There's very little coral, but always so many fish! But now it's time to leave, to find new challenges and horizons east. Just as we were about to go to engine sprung another leak and overheated, so there's nothing new under the sun. Now we begin our 1000 n.m. trek to Chagos, a group of uninhabited islands and atolls in the middle of the Indian Ocean. Jocara's position at noon today was 4 deg. 17.6'S, 55 deg. 41.3'E, on her way to take a quick look at a couple of turtle foraging grounds and possible Sperm Whale habitats before properly heading east for the long haul.

continued on page 38

Upcoming Conferences

14th International Symposium on Unmanned Untethered Submersible Technology
August 21-24, 2005
Durham, New Hampshire
www.ausi.org/uust/uust.html

Oceans 2005 MTS/IEEE
September 19-23, 2005
Washington, D.C.
www.oceans2005.org

2005 IEEE Underwater Acoustic Signal Processing Workshop
October 5-7, 2005
West Greenwich, Rhode Island
www.uasp.org

All-Electric Ship International Symposium 2005
October 13-14, 2005
Versailles, France.
Website : www.aes2005.org

Vehicles from Surface Platforms: Current and Future Trends
November 8-9, 2005
Annapolis, MD
<http://www.navalengineers.org>

International Workshop on Underwater Robotics
Genova, Italy
Nov. 9-11, 2005
<http://www.iwur2005.org>

2nd International Workshop on Detection and Localization of Marine Mammals using Passive Acoustics
Monaco
Nov 16 - 18, 2005.
www.accobams.org/events/isns_workshop/isns_workshop.html

2005 Homeland Security Workshop for Ocean and Maritime Technology
Marriott Hotel in Newport, RI.
December 6-8, 2005
<http://www.oceanicengineering.org>
Click on Conferences and Workshops
Click on IEEE-OES Homeland Security

Conference News

All-Electric Ship International Symposium 2005 (AES2005)

The IEEE Oceanic Engineering Society Announces the 5th International Symposium on the All-Electric Ship (AES) October 13-14, 2005 in Versailles, France. This Symposium will sum up the updated realizations and developments, both civil and military concerned by this concept, and will present the results of test demonstrations and simulations. This Symposium aims to:

- Assess current studies, projects and developments world-wide
- Create a forum for all electric civil and military ship constructors
- Identify the technical challenges posed by this concept
- Open up possibilities for technical and financial cooperation.

Online registration for the symposium and for accommodations is available at www.aes2005.org. The "early-bird" registration fee will be applicable until 12 September. Early registration is encouraged as October is a busy time for conferences.

For additional information, contact

AES 2005 Conference Department SEE

17 rue Hamelin

75783 PARIS CEDEX 16

FRANCE

Tel : +33 (0)1 56 90 37 0

Fax : +33 (0)1 56 90 37 08

E-mail : aes2005@see.asso.fr

Website : www.aes2005.org

2nd International Workshop on Detection and Localization of Marine Mammals using Passive Acoustics, Monaco Nov 16 - 18, 2005.

The IEEE OES announces the 2nd International Workshop on Detection and Localization of Marine Mammals using Passive Acoustics in Monaco, Nov. 16-18, 2005. The workshop will take place at the Oceanographic Museum of Monaco. Topics include, but are not limited to: Underwater acoustics, Representation and models, Analysis and Recognition, Detection, Local-

ization, and Applications.

Abstracts are due October 1, 2005.

Information available at:

www.accobams.org/events/isns_workshop/isns_workshop.html

For information on other OES activities, go to

<http://www.oceanicengineering.org>

Homeland Security Ocean and Maritime Technology Workshop

The IEEE-OES announces the 2005 Homeland Security workshop for Ocean And Maritime Technology. The workshop will take place December 6-8 at the Marriott Hotel in Newport, RI. Abstracts are being accepted in the following areas, but not limited to: Sensor and Vehicle Technologies, Preempting and Disrupting Terrorist Threats, Biometrics and Screening, First Responders, Maritime Domain Awareness, and Technologies for Countering Chemical and Bioterrorist Attacks.

Abstracts are due August 1, 2005.

For more information, go to the OES website

<http://www.oceanicengineering.org>

Click on Conferences and Workshops

Click on IEEE-OES Homeland Security

International Workshop on Underwater Robotics

The OES announces an international workshop on underwater robotics in Genova, Italy, Nov. 9-11, 2005. The workshop will bring together academic and industrial researchers and developers in the field of Underwater Robotics to discuss and understand the state-of-the-art and the cutting-edge topics in applying advanced robotic technology for sustainable management of marine ecosystems and environmental monitoring. Particular emphasis will be given to the exploitation of existing robotic platforms for scientific applications at sea highlighting how advanced robotics research could be driven by effective application problems. Cutting edge research on multi-vehicle coordination and heterogeneous fleet control will be examined with particular attention to international cooperations.

Further information is available at <http://www.iwur2005.org>

IEEE XPLORE Upgrade Provides New Tools For Researchers

IEEE has released several new research options for its IEEE Xplore online delivery platform. IEEE Xplore is the online delivery system which powers IEEE online subscriptions for organizations and individuals, including collections like the IEEE/IEE Electronic Library. It contains more than 1,100,000 documents from IEEE journals, magazines, transactions, and conferences, all active IEEE standards, and journals and conference proceedings from Europe's Institution of Electrical Engineers (IEE).

New features available through IEEE Xplore 2.1 include:

- 1) The metadata of all current book titles from Wiley-IEEE Press and Wiley-IEEE Computer Society Press are now available to all users browsing or searching IEEE Xplore. Books may be purchased through a link to the John Wiley and Sons web site.
- 2) The display of bibliographic information has been enhanced on various pages throughout the site. The Digital Object

Identifier (DOI) and part numbers (identifies periodicals issues and conference proceedings volumes that have multiple parts) are now displayed on all tables of contents, search results, Abstracts, and AbstractPlus pages.

- 3) Individual IEEE Standards are now available for purchase through links in IEEE Xplore. The credit card purchase is fulfilled through ShopIEEE. (Previously, individual standards were only available for purchase through ShopIEEE).
- 4) The regularly updated OPAC (Online Public Access Catalog) list of journal and conference proceedings has been enhanced to include the publication's start and end date in IEEE Xplore, ISBN, and indication of availability in online packages. These lists provide customers with seamless links from their OPACs directly to the publications in IEEE Xplore.

For full information on these and other features of IEEE Xplore, visit: http://ieeexplore.ieee.org/guide/g_oview_notes.jsp

CALL FOR PAPERS



Attending Countries

Denmark, Estonia, Finland, Germany, Latvia, Lithuania, Poland, Sweden,
Other EU Member States, Russia, US, Others invited

Sponsors

Center of Marine Research, Klaipeda University,
US National Oceanic & Atmospheric Administration's National Ocean Service
(invited);

US Office of Naval Research Global (invited); Institute of Electrical and
Electronics Engineers', Oceanic Engineering Society (OES); Vilnius University;
Kaunas University of Technology; Others invited

Symposium organizers

Symposium Chairmen: **U. S. Chair:** Joseph R. Vadus, Vice President, IEEE
Oceanic Engineering Society (j.vadus@ieee.org); **EU Chair:** Dr. Algirdas
Stankevicius, Director, Center of Marine Research (CMR), Klaipeda
(algsta@balticum-tv.lt); **Co-Chairs:** Prof. Benediktas Tilickis, Vice-Rector,
Klaipeda University (benediktas.tilickis@ku.lt); Prof. Raimundas Jasinevicius,

Kaunas University of Technology (raimundasj@yahoo.com); Prof. Algimantas Juozapavicius, Vilnius University (algimantas.juozapavicius@maf.vu.lt)

Finance Chairman: James Barbera, President, IEEE/OES (j.barbera@ieee.org)

Technical Program Chairs: Prof. Algimantas Juozapavicius, Vilnius University, (algimantas.juozapavicius@maf.vu.lt) & Prof. Victor Klemas, University of Delaware, (klemas@udel.edu); **Co-Chairs:** Dr. Albert Williams, IEEE/OES (awilliams@whoi.edu); Algis Kalvaitis, IEEE/OES (algissuzanne@erols.com) and Lina Siauliene, CMR (l.siauliene@jtc.lt)

Program Tracks & Suggested Topics

Integrated Ocean Observation Systems: Global Ocean Observation Systems; Baltic Ocean Observation Systems; Euro GOOS; NOOS; GEOSS; Remote Sensing; Real Time Measurements; Monitoring Systems; Data Collection, Analysis & Distribution; Data Standards & Calibration; Modeling.

Ecosystem-Based Management: Sustainable Development; Protection and Restoration; Remediation; Geographic Information Systems; Charting Coasts and Waterways; Cooperative Research Projects; Partnerships.

Marine Ecosystem Research: Fate of Pollutants; Run-Off Pollution; Sediment Transport & Analyses; Ocean Dumping; Oil spills and Hazardous Material; Eutrophication; Marine Biodiversity; Bio- Sensors; Natural Hazards.

Environmental Monitoring: Operational Monitoring of Physical, Chemical, Biological Parameters; Water Quality; Real Time Measurements; Remote Sensing; Modeling; Ocean Dumping; Pollution Control; Satellite Measurements; Global and Baltic Monitoring Programs; Monitoring Systems; Drifting Buoy Networks.

Environmental Technologies: Oceanographic Measurements (Current, Wave, CTD, Tidal); Sampling Techniques (Water, Chemistry, Sediment); Acoustic Techniques; Integrated Systems; Oil Spill Measurements & Modeling; Instrument Platforms; Satellite Systems; ROV's & AUV's; Gliders; Profiling Floats; Drifting Buoys.

Symposium Objectives

To Discuss and Exchange Information for Development of Integrated Ocean Observation Systems:

- ❖ Problems, Needs, Requirements & Solutions;
- ❖ Advances in Application of New Technologies;
- ❖ Promote Cooperative Projects & Partnerships.

ADVANCE PROGRAM

SYMPOSIUM SCHEDULE

Panel Discussion:

- ❖ What are the priorities and major needs?
- ❖ What are the international opportunities?

Monday, May 22, 2006

19.00 Ice Break and Registration

Day 1 – Tuesday, May 23, 2006

07.30-08.30 Registration
08.30-08.40 Opening Remarks
08.40-10.00 Opening Addresses
10.00-10.30 Coffee Break
10.30-12.00 PLENARY SESSION I
12.00-13.00 Lunch
13.00-15.15 WORK IN PARALLEL SECTIONS

Day 2 – Wednesday, May 24

08.30-10.15 PLENARY SESSION 2
10.15-10.30 Coffee Break
10.30-12.00 PLENARY SESSION 2 (CONTINUED)
12.00-13.00 Lunch
13.00 Excursion

Day 3 – Thursday, May 25

08.30-10.30 WORK IN PARALLEL SECTIONS
10.30-10.45 Coffee Break
10.45-12.45 WORK IN PARALLEL SECTIONS
15.45-16.00 Coffee Break
16.00-17.30 FINAL PLENARY SESSION
17.30 Closing Remarks and Adjourn Symposium
19.00 Final Banquet

VIP (INVITED)

H. E. Valdas Adamkus, President of the Republic of Lithuania
H. E. Stephen Mull, U. S. Ambassador in Lithuania
Ar_nas Kundrotas, Minister of the Environment of the Republic of Lithuania
EU Representative

PLENARY SPEAKERS

Dr. Richard M. Spinrad, Assistant Administrator, NOAA's National Ocean Service, "The U. S. IOOS Program & Strategy"
Dr. Hans Dahlin, Director, EuroGOOS, Sweden
Dr. Eric Buch, Director, "Baltic Ocean Observation System (BOOS)", Denmark
Mr. Philippe Marchand, Director, IFREMER, "France's GOOS Program"
Dr. Martin Holt, Chair NOOS Steering Group
Prof. Harald Loeng, GOOS Coordination Group, Norway (invited)
Dr. Andrew Clark, Ocean, U. S., "U. S. Industrial Strategy for IOOS"
Dr. Michael Pakstys, SAIC, "Baltic Strategy for Energy Resources"
Dr. Edward Gough, Technical Director, Naval Meteorological & Oceanographic Command, USA, "Advances in Naval Ocean Observation Technology"
Dr. Vadim Paka, Director, P.P. Shirshov Institute of Oceanology, Kaliningrad (invited)

PLENARY SESSIONS' & WORK IN PARALLEL SECTIONS' CO-CHAIRS

Dr. Algirdas Stankevi_ius, Center of Marine Research, Lithuania
Prof. Raimundas Jasinevi_ius, Kaunas University of Technology, Lithuania
Prof. Algimantas Juozapavi_ius, Vilnius University, Lithuania
Mr. Joseph R. Vadus, IEEE Oceanic Engineering Society, U. S.
Prof. Victor Klemas, University of Delaware, U. S.

Session Chairs summarize section highlights, including: major problems, solutions, conclusions and recommendations. Approximately 5-10 minutes per speaker.

Symposium Documents

The planned output of Symposium will be: the abstracts (on paper) and the proceedings of selected Symposium papers (on CD).

Official Language

The official language for the symposium will be English. No translation will be provided.

Background for Prospective Authors

This is the Second Baltic International Symposium. The first, held in 2004 attracted speakers from 17 nations. A [report on 2004](#) and [list of papers presented](#) are available.

The Baltic Sea is a valuable natural resource shared by nine countries bordering its waters. It provides marine resources, transportation corridors, marine recreation, tourism and desirable coastal living. Economic benefits are dependent on a clean environment. The Baltic Sea is 422,000 sq. km. with a relatively shallow average depth of 55 meters. The nine countries, bordering the Baltic Sea are working closely together in continuous monitoring of the Baltic Ecosystem, sharing research and environmental data in order to detect and assess changes that may impact environmental health. Other EU Nations and the U.S. have similar needs and many research programs addressing coastal and global environmental problems, and they can exchange information and experience with the Baltic Nations. Integrated Ocean Observation Systems provide an overarching mechanism to incorporate research and technology projects and systems to facilitate ecosystem-based management.

Environmental protection policies are based on a sustainable development approaches. Cleaning the Baltic Sea, preserving biodiversity and monitoring long range transboundary pollution are of great importance. Baltic nations boast many protected coastal areas that also serve as parks and recreational areas. For example, in Lithuania, the Curonian Spit separates the Curonian Lagoon from the Baltic Sea. It is famous for its nature and its landscape. UNESCO includes it in the World Heritage List, along with the capital city of Vilnius. The Commemoration of Lithuania's Millennium will be celebrated in 2009.

Call for Papers

You are invited to send a one-page abstract addressing one of the suggested topics. Early submittal is suggested because of program size limitations.

**Send abstracts by E-mail to Technical Program Chairs
& Co-chairs listed on the previous page by December
1, 2005**

Registration Fee

The registration fee for participating in Symposium is 150 EURO. The registration fee includes: ice break, coffee service, lunch, excursion, final banquet, Symposium's programme schedule and Symposium's documents; attendance at all plenary sessions and work sections. Travel and accommodation costs aren't included in the registration fee.

Meeting Point & Accommodation

The Symposium will take place in Klaip_da, in Hotel "Klaip_da".

Participants of the Symposium should make accommodations by themselves. Reservation and more detailed information about Klaipeda hotels on Internet: <http://www.lithuanianhotels.com/cities/Klaipeda>. The reservation should be made in advance, because there may be few vacancies during the warm season, beginning in April.

Hotels and their names, which are in 1-2 km distance from the meeting point are signed on the map.

KLAIPEDA HOTEL INFORMATION

Naujojo Sodo St. 1,
LT-5800 Klaipeda, Lithuania
Telephone: +370 46 404372
Fax: +370 46 404373
E-mail: hotel@klaipedahotel.lt
<http://www.klaipedahotel.lt/>

Type of room	Rate	Special Rate* for 2006 Symposium's Participants
Single room	280 Lt /81 EUR	196 LT / 57 EUR
Double room	300 Lt /87 EUR	210 LT / 61 EUR
Luxury for 1 pers.	430 Lt /125 EUR	301 LT / 87 EUR
Luxury for 2 pers.	450 Lt /130 EUR	315 LT / 91 EUR
Apartment for 1 or 2 pers.	1000 Lt /290 EUR	700 LT / 203 EUR

* Special rate (breakfast is included) is applicable from May 23, 2006 till May 25, 2006. VAT is included.

Useful information

Local Transport Rates*

Kind of Transport	Route	Approx. Price
Taxi	Vilnius International Airport - Vilnius Bus Station	5,8 EUR
Taxi	Vilnius International Airport - Vilnius Railway Station	5,8 EUR
Bus	Vilnius Bus Station - Klaip_da Bus Station	13,3 EUR
Train	Vilnius Railway Station - Klaip_da Railway Station	13,3 EUR
Taxi	Klaip_da Bus Station - Hotel "Klaip_da"	2,9 EUR
Taxi	Klaip_da Railway Station - Hotel "Klaip_da"	2,9 EUR
Taxi	1 km (within Klaip_da City limits)	0,3 EUR
Local Bus	Within Klaip_da City limits	0,3 EUR

*It is possible that all local rates in the future will rise up.



How to arrive at the meeting point

FLIGHTS

Palanga Airport

Liepojos highway 1,
LT-5720 Palanga
LITHUANIA
Tel.: +370 460 52020
E-mail: plqairport@is.lt
<http://www.palanga-airport.lt>

Palanga airport is only 25 km from Klaip_da city.

Vilnius International Airport

Rod_nios kelias 10A,
LT- 2038 Vilnius,
LITHUANIA
Tel. +370 5 230 6666
Fax. +370 5 2 32 9122
E - mail: airport@vno.lt
<http://www.vilnius-airport.lt/index.php?lang=en>

Vilnius International Airport is about 300 km from Klaip_da.

Kaunas Airport

Karmelava
54460, Kaunas dist.
tel.: +370 37 399 396
fax: +370 37 399 434
E-mail: info@kaunasair.lt
<http://www.kaunasair.lt>

Cheap Flights to Kaunas Airport on the Web Site <<http://www.skyscanner.net/flights/airport/kun/cheap-flights-to-kaunas.html>>.

Kaunas Airport is about 200 km from Klaip_da.

FERRIES

LISCO BALTIC SERVICE

J. Janonio St. 24
Klaipeda LT- 5813
Tel.: +370 46 393600
<http://www.lisco.lt/index.html>

If you are interested in Klaip_da city, visit Web Site <<http://www.klaipeda.lt>>. You will find out a lot of information about the 3rd largest city of Lithuania here.

Note: The Symposium Web site is www.us-baltic2006.org

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Recent Jocara Items *continued from page 26*

Jocara Newsletter Aug 11, 2005

Jocara has finally set off (again) on her long passage east, nearly 1600 miles, headed for Langkawi. The home-designed 9.2 meter steel mast is certainly an odd sight, with its blue-painted diamond trellice shape, but we're not complaining. Just so long as it stays up in one piece. It was 'knocked together' by a couple of welders in the friendly local boat yard over the weekend, no plans beyond what John sketched out on a scrap of paper, all done by eye and inspection. The rigging is 5 mm wire clamped together with rusty old turnbuckles, but it works. We've hoisted our modified Genoa (actually just the biggest single piece of Dacron we could salvage from our beautiful Rolly Tasker 130% Genoa) and find we can make about 3-4 knots in a light breeze from the NW, steering East. The engine is running at low revs to keep our speed up - we have very little time now before we are due back in Singapore. Our position at 12:00 UTC was 04 deg. 16.6'N, 075 deg. 30.9'E, rolling gently in a smooth swell and light air. We shan't be complaining if it stays this way. The thought of dealing with squalls again gives us the shivers, especially with this jury-rig mast. The radar alarm is now in constant use, guarding not only against collision with ships but also with squalls. It feels good to be on our way again, after so many false starts and disasters. Let's hope our run of three strikes (boom breaking, engine seizing and dismasting) is now over and that we can look forward to a less eventful couple of weeks on our way back. We've tasted enough 'adventure' for the moment, thank you Neptune!

Cheers for now,

From the crew of Jocara.

Jocara Newsletter Aug 2, 2005

Jocara now lies at anchor at 04 deg. 11.06'N, 073 deg. 26.67'E; a reclaimed island called Thilafushi in North Male atoll, otherwise known as 'Dustbin Island'. Before you get misty images of coconut palms, white sand beaches and coral-coloured water, this island is purely industrial and has nothing on it bar small factories and a gasworks. It is largely composed of Male rubbish, brought out by the ton over many years and burnt here. Replace romantic sunsets with Jocara sitting in grey brown water with a backdrop of burning rubbish tips reddening the evening horizon. Believe me, there are places in the Maldives you never knew existed.

The mast project is going... slowly. The current plan (I think it's plan D) is to use 9m of 4.5" o.d. mild steel pipe with 3 mm wall thickness (great how the world's gone mixed metric, eh?) and reinforce it with some triangular lattice work in 1.5" steel pipe to make a jury mast. It won't be pretty, it just has to work.

The backstay will be 3/8" stainless steel (scavenged from the old forestay) while the rest of the standing rigging will be 5 mm oiled mild steel (claimed breaking strength 6 ton when new) that we found in town. Jury-rigged sails to fit are being knocked up out of the scraps we have remaining by a local curtain shop! We'll see how it comes together. The idea is to be able to carry enough sail to make reasonable progress in 10-20 knots of wind behind the beam, carrying sufficient fuel to motor pretty much all the way if we have to.

Our dear Fairy Godmother Liz in Singapore has sent us out the new Harry Potter book, now awaiting pickup at the airport, so we can all look forward to enjoying a little escapism into that. Sometimes our situation gets us down pretty badly, and it's no fun for Casper and Alex being here.

We are aiming to leave by the end of this week if at all possible. This will put in line to arrive in Langkawi around 20 August to refuel and motor directly on to Singapore. It sure will be good to get Jocara back in one piece, well the piece that's left anyway. Actually, she doesn't look too bad, from a distance!

Cheers for now,

From the crew of Jocara.

Jocara Newsletter July 28, 2005

The sky is rosy pink with dawn light and Jocara rides gently at anchor in a light southerly breeze. We are in Male, at 4 deg. 13.2'N, 073 deg. 32.19'E, just surfacing from the first good night's sleep we've enjoyed in what seems a very long time. The authorities in Gan were very kind to us and cleared us back in without delay. Fuel was quickly organised and arrived in a tanker truck that was allowed to pull up alongside the Coast Guard jetty by special permission, as were we. We took on 1461 litres of diesel, so we won't be running out of the stuff for a little while.

Then we left for Male, motoring all the way north, stopping for a few hours to take a look at a couple of atolls to take a dip and a snorkel. We pulled in to Male yesterday, 27 July, and were immediately swallowed by the frenetic rush of boat taxis, barges, tugs, fishing boats and water traffic of all descriptions. Male town itself crowds the little atoll it sits on, the high-rise (while not Singapore scale) buildings seeming incongruous in this low-lying tropical atoll chain. We are anchored near the airport, though the planes do not bother us and the pretty little seaplanes are fun to watch as they take off and land nearby. We have already found a small boat yard that is now pricing up a project to make us a short wooden (pine) mast to get us back to Singapore. We may move over to the yard in a day or two to work on that with the idea of getting on our way as soon as possible, hopefully in about a week's time.

From the crew of Jocara.

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